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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,923	01/03/2005	Norbert Kroth	1454-1588	7678

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EXAMINER
LOFTIN, CELESTE

ART UNIT	PAPER NUMBER
2686	

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Office Action Summary		10/519,923	KROTH ET AL.
		Examiner	Art Unit	
		Celeste L. Loftin	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 July 2002</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>14-26</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>14-26</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>03 January 2005</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>01/03/2005</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States. ·

2.   Claim 14-23 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by

Oom et al. (Oom), **U.S. Patent 6,738,625.**

Regarding 14, Oom discloses a method for controlling transmission of data in a

radio communication system having a hierarchical network architecture, comprising:

administering physical resources for a data transmission to user equipment by a

first device at a first hierarchy within the hierarchical network architecture (a connection

extends from the MS which is connected through the RBS, to the RNC and to the MSC,

the MCS (located in the RNC) sends a establish message to the BRH (located in the

RNC) and in response the RBS and the BRH exchange messages in order to allocate

resources and establish a connection) **(col. 10 lines 45-55, col. 5 lines12-18)**; and

transmitting load information about a current load situation of the physical

resources by the first device (i.e. RNC) to a second device (i.e. RNM) at a second

hierarchy higher than the first hierarchy within the hierarchical network architecture for

controlling a load distribution (the RNM (the managing controlling entity) receives a CPU

load measuring report from the RNC's (load report could include the number of

establishments plus the number of connection releases per unit time) and compares the data to load measuring threshold) **(col. 11 lines 1-5, and col. 10 lines 64-67)**.

Regarding claim 15, Oom discloses a method according to claim 14, wherein the load information includes load states for an area of the radio communication system supplied by the first device (the CPU load measurement reports may include for example the number of connections establishment plus the number of connection releases per unit time, the network performance management application can collect statistics from the material also during the routine if the RNM discovers an RBS that is equipped with a double connection between RNC1 or RNC2 the RNM decides which RNC has sufficient resources to take over the connection) **(col. 7 lines 49-54 and col. 8 lines 4-11)**.

Regarding claim 16, Oom discloses a method according to claim 15, wherein the load information includes load values averaged over time for at least one of defined operating parameters and signaling types of the radio communication system for radio data connections between user equipment and a third device of a lowest hierarchy (the CPU load measurement reports may include for example the number of connections establishment plus the number of connection releases per unit time, the network performance management application can collect statistics from the material, for example by low pass filtering the reports the network performance application can determine if a load in a particular RNC is too high) **(col. 7 lines 49-60)**.

Regarding claim 17, Oom discloses a method according to claim 16, further comprising:

cell load reporting (the RBSes normally have enough electronics to service mobile stations within their respective cell or cells, each RNC usually controls and routes calls for multiple RBSes, the RNM monitors the load statistics for RNCs) **(col. 1 lines 31-37 and col.7 lines 65-67 and col.8 lines 1-5)**; and

checking on an assignment of user equipment to specific devices of the lowest hierarchy based on said cell load reporting (the RNM receives CPU load measuring reports from the RNCs and compares the report to a threshold for each RNC and if the RNM discovers an RBS that is equipped with a double connection between RNC1 or RNC2 the RNM decides which RNC has sufficient resources to take over the connection) **(col. 10 lines 64-67 and col. 8 lines 4-11)**.

Regarding claim 18, Oom discloses a method according to claim 17, wherein the radio communication system is a cellular radio communication system (reads on in existing cellular systems here exemplified by a system operating in accordance with the global system for mobile communication (GSM)) **(col.1 lines 54-59)**, and

wherein said method further comprises checking on a handover option for at least one user equipment from a first cell of the radio communication system to a second cell of the radio communication system based on said cell load reporting (the RNM receives CPU load measuring reports from the RNCs and compares the report to a threshold for each RNC and if the RNM discovers an RBS that is equipped with a double connection between RNC1 or RNC2 the RNM decides which RNC has sufficient resources to take over the connection) **(col. 10 lines 64-67 and col. 8 lines 4-11)**.

Regarding claim 19, Oom discloses a method according to claim 18, wherein said cell load reporting includes transmissions depending on particular time events (the CPU load measurement reports may include for example the number of connections establishment plus the number of connection releases **per unit time**, the network performance management application can collect statistics from the material, for example by low pass filtering the reports the network performance application can determine if a load in a particular RNC is too high) **(col. 7 lines 49-60)**.

Regarding claim 20, Oom discloses a method according to claim 19, wherein said cell load reporting includes periodic transmissions (the CPU load measurement reports may include for example the number of connections establishment plus the number of connection releases **per unit time**, the network performance management application can collect statistics from the material, for example by low pass filtering the reports the network performance application can determine if a load in a particular RNC is too high) **(col. 7 lines 49-60)**.

Regarding claims 21, Oom discloses a method according to claim 18, wherein said cell load reporting includes transmissions depending on specific operational events of the radio communication system (the CPU load measurement reports may include for example the number of connections establishment plus the number of connection releases **per unit time**, the network performance management application can collect statistics from the material, for example by low pass filtering the reports the network performance application can determine if a load in a particular RNC is too high) **(col. 7 lines 49-60)**.

Regarding claim 22, Oom discloses a method according to claim 21, wherein said cell load reporting is undertaken as a function of defined load states for the area of the radio communication system served by the first device (the RBSes normally have enough electronics to service mobile stations within their respective cell or cells, each RNC usually controls and routes calls for multiple RBSes, the RNM monitors the load statistics for RNCs) **(col. 1 lines 31-37, col.7 lines 65-67, col.8 lines 1-5 and col.10 lines 64-67)**.

Regarding claim 23, Oom discloses a method according to claim 22, wherein said cell load reporting is undertaken as a function of defined threshold values for the load states (the RNM receives load measurement reports from the RNCs and compares the report for each RNC to a threshold value if the it is greater the RNM then the RNM has detected an overcapacity condition in the relevant RNCs, if not it waits) **(col. 10 lines 64-67 and col.11 lines 1-15)**.

Regarding claim 25, Oom discloses a radio communication system having hierarchical network architecture with devices for control of transmission of data to user equipment and administration of physical resources, comprising:

at least one high level device at a first hierarchy within the hierarchical network architecture, controlling load distribution of the radio communication system (the RNM (the managing controlling entity) receives a CPU load measuring report from the RNC's (load report could include the number of establishments plus the number of connection releases per unit time) and compares the data to load measuring threshold) **(col. 11 lines 1-5, and col. 10 lines 64-67)**; and

at least one low level device at a second hierarchy lower than the first hierarchy,

transmitting to said high level device, information about a current load situation of the

physical resources administered by said at least one low level device for a data

transmission to the user equipment, said high level device controlling the load

distribution based on the information (the RNM (the managing controlling entity)

receives a CPU load measuring report from the RNC's (load report could include the

number of establishments plus the number of connection releases per unit time) and

compares the data to load measuring threshold) **(col. 11 lines 1-5, and col. 10 lines**

64-67).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claim 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Oom et al. (Oom), **U.S. Patent 6,738,625,** in view of Jain et al. (Jain), **U.S. Publication**

09,877,917.

Regarding claim 24, Oom discloses a method according to claim 23, but fails to

disclose further comprising controlling a transmission of data packets in a packet data

transmission system.

In a similar field of endeavor, Jain discloses further comprising controlling a

transmission of data packets in a packet data transmission system (an access terminal

transmits and receives data packets through one or more modem pools to transceivers

to base station controllers (referred to as a modem pool controller), the congestion

control applicable to a warless communication system and specifically a communication

system adapted for packetized transmissions is performed in the base station controller)

(paragraph [0032] and [0021]).

At the time of the invention it would have been obvious to one of ordinary skill in

the art to modify Oom to include controlling a transmission of data packets in a packet

data transmission system. Motivation for this modification would have been to

understand that the principles of invention could be applicable to other wireless

communication systems.

Regarding claim 26, Oom discloses a radio communication system according to

claim 25, but fails to disclose wherein the radio communication system is a packet data

transmission system.

In a similar field of endeavor, Jain discloses wherein the radio communication

system is a packet data transmission system (referred to as a modem pool controller),

the congestion control applicable to a wireless communication system and specifically a

communication system adapted for packetized transmissions is performed in the base

station controller) **(paragraph [0032] and [0021]).**

At the time of the invention it would have been obvious to one of ordinary skill in the art

to modify Oom to include wherein the radio communication system is a packet data

transmission system. Motivation for this modification would have been to understand

that the principles of invention could be applicable to other wireless communication

systems.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to
applicant's disclosure.

Maveddat et al., U.S. Patent 6,129,604 discloses a dynamic load distributing in a
wireless communication system to equalize loading on mobile switching centers.

Longoni, U.S. Patent 6,968,192 discloses cell load control method and system.

Budka et al., U.S. Patent 6,577,871 discloses technique for effectively managing
processing loads in a communication arrangement.

Karlsson et al., U.S. Publication 2005/0148337 discloses a method and
arrangement for network load regulation.

Lo et al., U.S. Patent 6,792,275 discloses a fuzzy channel allocation controller
having service quality insuring.

Wallentin et al., U.S. Patent 6,292,667 discloses a multicell area paging for
cellular telecommunications system.

Lee et al., U.S. Patent 6,553,233 discloses a method for calculating an optimal
number of BTSS in a wireless network and determining a loading factor value therefor.

He et al., U.S. Patent 6,671,259 discloses a method and system for wide area
network load balancing.

Irifune et al., U.S. Publication 2003/0112752 disclose a system and method for
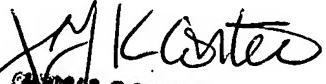controlling congesting in networks.

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Celeste L. Loftin whose telephone number is 571-272-2842. The examiner can normally be reached on Monday thru Friday 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CL   CONTEE
        PATENT EXAMINER